The NATIONAL ENVIRONMENTAL LABORATORY ACCREDITATION CONFERENCE

Q: What is the NATIONAL ENVIRONMENTAL LABORATORY ACCREDITATION CONFERENCE (NELAC)? What is its vision?

A: *The National Environmental Laboratory Accreditation Conference (NELAC) is a voluntary association of state and federal agencies whose purpose is to establish and promote mutually acceptable performance standards for the operation of environmental laboratories in support of the National Environmental Laboratory Accreditation Program (NELAP). The goal of the conference is to foster the generation of environmental laboratory data of known quality on which to base public health and environmental management decisions.*

The vision of NELAC includes the development of uniform standards by the states and the United States Environmental Protection Agency (EPA) with private sector input including that from other public entities, e.g., municipalities, as well as formal input from the regulated commercial laboratory industry, e.g., the Environmental Laboratory Advisory Board (ELAB). These standards will be adopted voluntarily by states who wish to operate laboratory accreditation programs consistent with national environmental laboratory standards. States will function as the primary accrediting authority with EPA oversight to assure uniformity. Accreditations will be automatically recognized by other states operating under NELAC standards, thus reducing redundant and conflicting accreditation requirements.

Q: Why do we need a NATIONAL ENVIRONMENTAL LABORATORY ACCREDITATION CONFERENCE?

A: *NELAC originated as a result of concerns expressed by regulators, laboratories, and laboratory clients about the need for consistent and reliable high quality data on which to base environmental management and regulatory decisions. There was also concern about fragmented state and federal laboratory accreditation programs establishing differing and sometimes conflicting standards for laboratory inspections, proficiency testing, and operation as they dealt with multi-matrix issues involving drinking water, wastewater, and hazardous waste.*

Data generated by environmental laboratories form the basis for a wide range of public health, environmental management, and regulatory decisions. Hundreds of millions of dollars are spent nationwide each year to clean up abandoned hazardous waste sites. The estimated cost to clean up sites contaminated by leaking underground storage tanks alone is in the tens of billions of dollars. The cost of full implementation of the Clean Air Act also is anticipated to be tens of billions of dollars per year by the year 2005. The costs for other environmental programs are also significant.

In all of these cases, the methodology and degree of clean up are based largely on data generated from environmental sampling and analysis. Additionally, routine sampling and analysis for compliance monitoring often form the basis for the design of future control technologies. Unreliable laboratory data could result in unnecessary clean up costs, or in some cases, not enough clean up.

At this time there are no nationally recognized standards or oversight organization(s) in place to verify that all environmental laboratories play by the same rules, use recognized methodologies, and have an implemented quality assurance program that is effective. Without consistent adherence to national standards,

inconsistent results can be obtained by the analysis of the same sample by different laboratories. Decisions based on this inconsistent data may also vary accordingly. Also, meaningful data from studies of large systems such as rivers which may involve several states and many laboratories, can only be obtained if all analyses performed adhere to the same high standards. Use of national standards will improve the likelihood that consistently reliable and comparable data will be produced upon which to base responsible regulatory decisions.

Some states have developed accreditation programs, but programs vary from state to state. Laboratories doing business in more than one state are subject to multiple accreditation requirements and inspections, resulting in technical contradictions as well as cost inefficiencies for the states and the laboratories. Some states have no accreditation program and no practical way to verify acceptability of data generated by a given lab.

Q: Will the NATIONAL ENVIRONMENTAL LABORATORY ACCREDITATION CONFERENCE duplicate other programs? Is this another layer of bureaucracy?

A: *NELAC should reduce bureaucracy by replacing the number of on-site inspections, performance evaluation testing programs, and related requirements with a comprehensive, consistent on-site inspection system that evaluates all environmental programs based on standardized criteria. This change will lead to a system which will be less redundant, more effective, and more cost-efficient. This reduced bureaucracy will be accomplished because NELAC will provide a basis for coordination of current accreditation activities of different states and governmental agencies.*

NELAC probably will require reciprocity among state programs adopting the national standards.

Q: How will the NATIONAL ENVIRONMENTAL LABORATORY ACCREDITATION CONFERENCE work?

A: *The National Environmental Laboratory Accreditation Conference (NELAC), a voluntary organization (modeled after the National Conference of Weights and Measures), will establish and modify accreditation standards.*

NELAC voting members will include state and federal agencies. Other interested parties (contributing members) can make presentations and provide input at all stages of the standards and procedures-making process. A federally chartered advisory board provides input from a variety of private sector interests.

States will function as the primary accrediting authority. However, it is anticipated that states may contract with third parties for support services and will develop reciprocity agreements with other states.

As the national program oversight agency through NELAP, the EPA will evaluate the performance of state and federal agencies as accrediting authorities and will coordinate relevant training.

Laboratories to be accredited will be required to demonstrate qualifications of testing personnel, pass on-site inspections, perform satisfactorily on proficiency testing samples, meet specified quality assurance standards, and demonstrate adherence to validated methods.

Q: How will the NATIONAL ENVIRONMENTAL LABORATORY

ACCREDITATION CONFERENCE benefit the states?

A: *NELAC improves the likelihood that consistently reliable, accurate, and comparable laboratory data will be generated upon which to base regulatory and environmental management decisions impacting public and environmental health.*

NELAC establishes a minimum level of consistency and quality of performance, nationwide, for laboratories and allows reciprocity among states which will reduce redundant travel and inspection costs.

It will also increase access to knowledge of the ability, performance, and competency of environmental laboratories to the customers of that service.

NELAC improves the likelihood that state, federal and private dollars spent on environmental assessment, pollution reduction, controls, cleanups and compliance monitoring are used in a cost-efficient manner so as to best protect the nation's public, environmental, and economic health.

Q: How much will NELAC affect accreditation cost? What are the financing options for states?

A: *Costs will vary from state to state depending, in part, on the number of participating laboratories.*

In many of the states, it is anticipated that costs will be borne by the participating laboratories through accreditation fees, which will vary depending upon several factors including the number of methods for which the laboratories are seeking accreditation.

Legislation to authorize fee collection also may be required in some states.

Q: How does the program foster quality?

A: *NELAC will develop standards that all laboratories must meet or exceed to receive accreditation. These standards will define what qualities a lab must possess to analyze environmental samples with a known level of confidence. To maintain accreditation, laboratories will be monitored by the accrediting organization to make sure those laboratories continue to measure up to the uniform standards.*

EPA will evaluate, approve and report on the accreditation programs implemented by the states.

Proposed standards have been developed for policy and structure, accrediting authority, quality systems, proficiency testing, on-site assessment, accreditation process, and implementation. The standards are modeled after international guidelines, e.g., ***ISO Guide 25****, relating to requirements for competency of calibration and testing laboratories;* ***ISO Guide 58****, covering requirements for operation and recognition of accrediting bodies; and* ***ISO Guide 43****, on laboratory proficiency testing.*

Q: How will NATIONAL ENVIRONMENTAL LABORATORY ACCREDITATION benefit the different constituency groups?

A: *<u>COMMERCIAL LABORATORIES</u>*

- *replaces limited, redundant and often contradictory inspections with comprehensive standardized inspections*
- *improves acceptability of data to regulators and customers*
- *enhances ability to compete internationally (other countries already have programs which may limit testing by foreign laboratories to those which can demonstrate adherence to national or international standards.)*

- *Significantly reduces the substantial indirect costs associated with redundant accreditation activities.*

INDUSTRY / MUNICIPAL IN-HOUSE LABS

- *establishes credibility of data*
- *improves acceptability of data to regulatory agencies nationwide*
- *promotes appropriate data for in-house environmental management decisions of the regulated industry*

PROFESSIONAL ASSOCIATIONS

- *provides a national forum to formulate accreditation standards and analytical methods*
- *improves credibility and standardizes quality systems for laboratories, thus increasing the credibility of environmental management decisions*

AFFECTED PUBLIC

- *ensures establishment of consistent standards upon which to base the acceptability of environmental laboratory data*
- *saves tax dollars by eliminating duplicate and redundant inspections*
- *enhances data comparability thus allowing more effective prioritization of environmental problems for subsequent remediation*
- *greater consistency of data quality will lead to more responsible and cost-effective large-scale regulatory decisions which will better safeguard the nation's public, environmental, and economic health.*

Q: How does the NATIONAL ENVIRONMENTAL LABORATORY ACCREDITATION CONFERENCE plan to address the issue of state legislative authority necessary to implement NELAC?

A: NELAC plans to introduce the idea of NELAC to state legislatures and to try to obtain feedback as to what legislative impact this will have, identify the barriers expected, and the potential timetable of implementation in each state.

It is not NELAC's intent to interfere with the normal process of government, but to assist when requested, and as necessary. NELAC plans to brief states on environmental laboratory accreditation issues and then leave the specific implementing resolutions to each state.

Q: Does the NATIONAL ENVIRONMENTAL LABORATORY ACCREDITATION CONFERENCE offer Internet connectivity?

A: NELAC offers information via EPA's Technology Transfer Network (TTN) service.

World Wide Web access is at the URL: http://134.67.104.12/html/nelac/nelac.htm#NL02

Revised versions of the standards and constitution and bylaws are available.

The NELAC bulletin board is also found on the TTN. Call (919) 541-5384 for access help during business hours, 11-5 EST.